## SFUND RECORDS CTR 88144447

PETE WILSON, Governor

## CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD LOS ANGELES REGION

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SFUND RECORDS CTR 2166-95317



June 29, 1993

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WELL INVESTIGATION PROGRAM—SUBSURFACE AND HYDROGEOLOGIC INVESTIGATION (FILE NO. 104.0582)

Reference is made to your consultant's, ICF Kaiser Engineers, "Supplemental Work Plan for Additional Work Elements at the ITT Burbank site" dated April 1993. We have reviewed the work plan and have no objections to its implementation provided that all work is completed as specified in the proposal and complies with the enclosed "Quality Assurance/Quality Control Guidance Document" with the following site specific requirements:

- 1. Prior to commencing any field activities the following items need to be addressed and the information submitted to this Regional Board:
  - a) The registered or certified individual who is directly overseeing field activities and is required to sign the final report for this project must submit in writing the level of their involvement with this project and the duration of direct on-site field supervision for drilling, sampling, logging, well construction and development.
  - b) A discrepancy in the work plan needs to be clarified, regarding the number of proposed monitoring wells to be installed during each phase of this hydrogeologic assessment, Task 1A and Task 1B. Your consultant indicated that seven monitoring wells would be installed during Task 1A and three during Task 1B. However Table 2-1, "Proposed Monitor Wells and Rationale" on page 2-3, in the work plan, indicates that eight and two monitoring wells are to be installed during the Task 1A and Task 1B phase, respectively.
  - c) Your consultant indicates "The length of screen for wells to be installed in the upper-water bearing zone wells

will be assessed based on the depth of the expected clay layer." This contingency criterion for determining the length of the screen material must be clarified, since it is unclear whether the sufficient length would be generated.

- d) Reference is made to figure 2-1 "Proposed Monitoring Well locations" on page 2-2 of the work plan. The locations and rationale of the proposed monitoring wells have been reviewed and the following revised locations are recommended:
  - 1. The location of monitoring well PW-3A is recommended to be installed closer to the north-west corner on-site. This location may provide additional information on the quality of ground water flowing on to the ITT site.
  - 2. Monitoring wells OW-2A and OW-2B are recommended to be relocated further down gradient, near the corner of Cosmic and Thompson Avenue. This location may provide better information on the distribution of VOC plumes down-gradient of the ITT site, in conjunction with the ground water data collected from EPA wells VPB-07 and CW-03.
  - 3. The proposed monitoring well location OW-3A is recommended to be relocated further south-west, closer to the ITT facility, near the corner of Alameda Avenue and Flower Street. This monitoring well location, in conjunction with the data collected from EPA well VPB-03, may provide better information on localized ground water flow direction up-gradient of the ITT site. It also may provide better ground water quality information up-gradient of the ITT site, in conjunction with the ground water data from the proposed well OW-1A.
- e) A construction diagram, demonstrating the prevention of cross-contamination between the different water-bearing aquifers, is needed for the monitoring wells to be installed for the upper water bearing zone in the perched ground water area and underlying water bearing zone that will penetrate a competent clay layer.
- 2. The final location of the monitoring wells will be verified in the field prior to the commencement of drilling by Board staff.

- 3. Clay layers are expected to be encountered, as indicated by your consultant, at the bottom of the upper water bearing aquifer and bottom of the perched ground water aquifer during the installation of the monitoring wells in the upper water bearing zone in the perched ground water area and underlying water bearing zone. Samples of the clay material must be collected at five and ten feet below the top of each clay layer that is penetrated and analyzed by EPA Method 8010.
- 4. The proposed monitoring wells to be installed for the upper water bearing zone must not penetrate the competent clay layer below the saturated zone of the upper water bearing aquifer. A sample of the confining clay at the end of the borehole must be collected, five feet below the top of the clay layer, and analyzed by EPA method 8010.
- 5. Due to depth requirements for the placement of annular seal material, the cement-bentonite grout mix must be emplaced by an appropriate tremie method, from immediately above the bentonite seal to the top of the borehole.
- 6. A minimum waiting period of 48 to 72 hours must be observed prior to well development in order to allow strengthening of annular seal and well completion materials.
- 7. Any samples collected for chemical analysis must be transported to the testing laboratory within 24 hours of obtaining the samples.
- 8. Subsequent to well development, and immediately prior to purging the monitoring wells, a sample is to be obtained of the water table and analyzed for petroleum hydrocarbons.
- 9. If any visual hydrocarbon sheen, emulsified, and/or free phase hydrocarbons are identified then a sample must be obtained for laboratory analysis.
- 10. "Field Checklist for the QA/QC Guidance Document" (Appendix A) and "Laboratory Report Form 10A and 10B" (Appendix D) or their equivalent forms should be used for the report.
- 11. An area-wide ground water monitoring well map identifying existing wells adjacent (half mile) to the site and related data must be developed, and incorporated into the final report for this project.
- 12. An ongoing well maintenance program must be developed to ensure the integrity of all monitoring wells. Wells should be

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redeveloped as needed to remove excessive and/or accumulated sediments in the bottom of wells. All surface seals must be maintained and well covers replaced as needed.

13. Three copies of the technical report containing the results of this subsurface hydrogeologic investigation is due to this Regional Board by October 1, 1993. Subsequently, all new ground water monitoring wells must be sampled quarterly at a minimum and incorporated into the existing ongoing ITT monitoring program and schedule.

Please notify us at least ten days before commencing any field work, so that we may schedule a representative to be present.

If you have any questions, please contact Ms. Ana Veloz at (213) 266-7590.

GREGG KWEY

Senior Water Resource Control Engineer

Enclosures.

Cc: Claire Trombadore, US EPA, Region IX

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Joe Solores, City of Burbank, Fire Department Inspector

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